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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,856	11/08/2005	Akisuke Hirata	026390-00028	5744
4372 7590 09/30/2009 ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036				
EXAMINER DEO, DUY VU NGUYEN				
ART UNIT		PAPER NUMBER		
1792				
NOTIFICATION DATE		DELIVERY MODE		
09/30/2009		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com
IPMatters@arentfox.com
Patent_Mail@arentfox.com

Office Action Summary

Application No.

10/538,856

Applicant(s)

HIRATA ET AL.

Examiner

Duy-Vu N. Deo

Art Unit

1792

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1.5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1.5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 9/11/09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Sumitomo Electric Industries, Ltd. (JP 8-165582 A).

Patent from Sumitomo Electric Industries, Ltd describes a component comprising: a chrome plating layer on a base matrix material of Cu, or Cu alloy (claimed a metal layer electrochemically less noble than the matrix metal material) and gold plating layer on the chrome plating layer (claimed a second metal film layer electrochemically more noble than the matrix metal material) (claim 1).

In another embodiment, he teaches a nickel plating layer between the chrome plating layer and the base material (claim 2). This nickel plating layer would read on claim a metal film layer electrochemically less noble than the matrix metal material (Cu or Cu alloy).

The new limitations of "thereby forming a local cell" and the first and second materials are formed by methods such as thermal spraying, vapor deposition, sputtering, or laminating are method steps. Since a product is independent of how it is made; therefore, therefore they don't carry patentable weight since the claim is a product claim. It is applicant's burden to show that the methods manipulatively effect the product, which make it different from the prior art's product.

The new limitations in claim 1 of describing the electrochemical property of the materials when dipped in a cleaning liquid are mental steps and since the cleaning liquid is not a part that makes up the component; they don't carry patentable weight.

Claim Rejections - 35 USC § 112

3. Claims 1, 5, 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Referring to claim 1:

The limitation "thereby forming a local cell" is a method step. It is not clear how it would further limit a product claim of a component.

The limitations "*a first metal film layer electrochemically less noble than the matrix material in the cleaning liquid, thereby forming a local cell, when dipped in the cleaning liquid, between the matrix material and the first metal layer, the first metal film layer being formed on a surface of the matrix material through one of: thermal spraying, vapor depositing, and laminating; and a second metal film layer formed on the surface of the first metal film layer, the second metal film layer being electrochemically more noble than the matrix material in the cleaning liquid, thereby forming a local cell, when dipped in the cleaning liquid, between the first metal film layer, the second metal film layer being formed through...*" are mental steps. It is not clear how they manipulatively affect the final product of the component. Furthermore since the liquid is not part of the

component, it is not clear how the liquid would further limit the structure of the component.

Referring to claims 5 and 6, it is not clear what the means, 1st means, and second means are. The specification doesn't describe any actual components or apparatus that positively perform a function on an object. It appears that a means plus as claimed refers to a material, which does not nor capable of positively perform a function. Furthermore, it is not clear how a means plus function can be used to describe a material of a product since a material is not an apparatus and can not positively perform a function on an object.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is not clear wherein the specification teaching of "a means on said matrix material for forming a local cell, when exposed to a cleaning liquid, with the matrix material so that a local current flows from the matrix material thereby advancing dissolution of the means at an interface between the means and the matrix material and allowing the removal of a film layer of the thin film from the matrix material", and "a first means on said matrix material for forming a first local cell,

when exposed to a cleaning liquid, with the matrix material so that a first local current flows from the matrix material thereby advancing dissolution of the first means at an interface between the first means and the matrix material and allowing the removal of a film layer of the thin film from the matrix material; and a second means on said first means forming a second local cell, when exposed to a cleaning liquid, so that a second local current flows from the second means thereby advancing dissolution of the first means at an interface between the first means and the second means and allowing the removal of the film layer of the thin film from the matrix material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy-Vu N. Deo whose telephone number is 571-272-1462. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on 571-272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Duy-Vu N Deo/
Primary Examiner, Art Unit 1792

9/27/09